

MISR Level 3 Products Quality Statement May 13, 2005

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Quality Designator:

• Stage 2 Validated: Component Global Aerosol Product

• Stage 1 Validated: Component Global Georectified Radiance Product

• Provisional/Beta: Component Global Land Surface Product

• Beta: Component Global Albedo Product

MISR maturity level definitions

This statement applies to the MISR Level 3 Georectified Radiance product, MISR Level 3 Aerosol product, the MISR Level 3 Land Surface product, and the MISR Level 3 Albedo product with a production date of May 13, 2005, or later until such a time as further improvements to MISR software or ancillary inputs are made. See the <u>Versioning Page</u> for an in-depth explanation of the differences between various MISR product versions. Quality statements covering earlier time periods may be accessed through <u>links</u> at the bottom of this page.

An extensive review of product quality has not yet been performed. Please read the <u>summary words of caution</u> if you have not done so already.

Although there are warnings relating to Beta and Provisional quality parameters, the MISR Level 3 software which generated this product is believed to be functioning quite well except where noted below. This statement highlights major known problems with the products, as well as functionalities which are currently not implemented.

Georectified | Aerosol | Land Surface | Albedo

Component Global Georectified Radiance Product (a.k.a. CGGRP, MIL3DRD, MIL3MRD, MIL3QRD, MIL3YRD) (from MISR PGE 12a)

Quality Designator: Stage 1 Validated

PRODUCT MATURITY

All component global georectified radiance parameters now have a "Stage 1 Validated" status.

LEVEL 1 PROBLEMS

The Level 3 Georectified Radiance product is a summary of the L1B2 Terrain and L1B2 Ellipsoid Radiance products and therefore, all of the Level 1 quality statements apply.

Component Global Aerosol Product (a.k.a. CGAS, MIL3DAE, MIL3MAE, MIL3QAE, MIL3YAE) (from MISR PGE 12c)

Quality Designator: Stage 2 Validated

PRODUCT MATURITY

All component global aerosol parameters now have a "Stage 2 Validated" status.

LEVEL 2 AEROSOL PROBLEMS

http://eosweb.larc.nasa.gov

particular, it is noted that optical depth blunders in the Level 2 product can frequently occur over snow/ice fields due to low spatial contrast and also as a consequence of inadequate cloud screening. Many such blunders have been observed over Greenland and Antarctica. Therefore, these two geographic areas are currently being excluded in the Level 3 Global Aerosol Product but with the expectation that they will be included at a later date.

A problem with the "Time of Observation" data has been found. The "Time of Observation" vdata is missing many Level 2 observations. The actual Level 3 averages contain all of these observations, they simply aren't being recorded in the "Time of Observation" vdata. This will be fixed in the next version of the software.

Component Global Land Surface Product (a.k.a. CGLS, MIL3DLS, MIL3MLS, MIL3QLS, MIL3YLS) (from MISR PGE 12c)

Quality Designator: Provisional/Beta

PRODUCT MATURITY

All component global land surface parameters now have a "Provisional" status with the exception of

DHR Shortwave which has a "Beta" status.

LEVEL 2 LAND SURFACE PROBLEMS

The Level 3 Land Surface product is a summary of the Level 2 Land Surface product, and therefore all of the <u>Level 2 land surface quality statements</u> apply.

A problem with the "Time of Observation" data has been found. The "Time of Observation" vdata is missing many Level 2 observations. The actual Level 3 averages contain all of these observations, they simply aren't being recorded in the "Time of Observation" vdata. This will be fixed in the next version of the software.

Component Global Albedo Product (a.k.a. CGAL, MIL3DAL, MIL3MAL, MIL3QAL, MIL3YAL) (from MISR PGE 12b)

Quality Designator: Beta

PRODUCT MATURITY

All component global albedo parameters now have a "Beta" status.

LEVEL 2 ALBEDO PROBLEMS

The Level 3 Albedo product is a summary of the Level 2 Albedo product, and therefore all of the Level 2 albedo quality statements apply.

A problem with the "Time of Observation" data has been found. The "Time of Observation" vdata is missing many Level 2 observations. The actual Level 3 averages contain all of these observations, they simply aren't being recorded in the "Time of Observation" vdata. This will be fixed in the next version of the software.

Also see the

- Statement dated March 10, 2004 for MISR Level 3 Products from March 10, 2004 to May 13, 2005.
- Statement dated March 24, 2003 for MISR Level 3 Products from March 24, 2003 to March 9, 2004.
- Statement dated July 31, 2002 for MISR Level 3 Products from July 31, 2002 to March 23, 2003.